

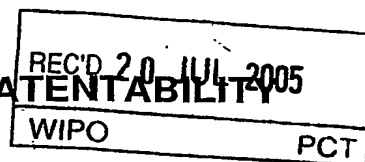
# PATENT COOPERATION TREATY


## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 62657A		<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. PCT/US2004/010330		International filing date (day/month/year) 31.03.2004		Priority date (day/month/year) 02.04.2003
International Patent Classification (IPC) or national classification and IPC H01L21/312				
Applicant DOW GLOBAL TECHNOLOGIES INC. et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand  15.10.2004		Date of completion of this report  15.07.2005		
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer  Patterson, A  Telephone No. +31 70 340-		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/US2004/010330

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**Box No. I Basis of the report**

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1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-25 as originally filed

**Claims, Numbers**

1-10 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (*specify*):
  - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/US2004/010330

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	1-10
	No: Claims	none
Inventive step (IS)	Yes: Claims	none
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	none

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

**Re Item V.**

1 The following documents are referred to in this communication:

D1 : WO 02/16477 A2 (THE DOW CHEMICAL COMPANY) 28 February 2002  
(2002-02-28)

D2 : EP 1 246 239 A (JSR CORPORATION) 2 October 2002 (2002-10-02)

D3: US-B1-6 406 794 (SHIOTA ATSUSHI ET AL) 18 June 2002 (2002-06-18)

D4: US-A-5 700 899 (AOKI ET AL) 23 December 1997 (1997-12-23)

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.

2.2 Document D1, which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses (the references in parentheses applying to this document): a curable organosilicate composition, that can be used for making thin layers, comprising a first alkoxy or acyloxy silane having at least one group containing ethylenic unsaturation bonded to the silicon atom; and a second alkoxy or acyloxy silane having at least one group containing an aromatic ring bonded to the silicon atom (claim 1). This composition also contains an inorganic or organic acid (examples 6 and 10), which acts as a catalyst.

2.3 The subject-matter of independent claim 1 differs from the disclosure of D1 in that a latent acid catalyst is employed. The problem to be solved by the present invention may therefore be regarded as preventing the premature reaction of the silanes in the curable composition.

2.4 In view of D2 the solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) since D2 discloses (see paragraphs [0078] to [0081]) curable compositions which may comprise silanes such as those mentioned in claim 1 and, additionally a latent acid generator which forms an acid catalyst only when heated or irradiated by UV light. Therefore the features disclosed in D1 and D2 would be combined by the skilled

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.

PCT/US2004/010330

person, without exercise of any inventive skills in order to solve the problem posed. The proposed solution in independent claim 1 thus cannot be considered inventive (Article 33(3) PCT). It is further pointed out that documents D3 and D4 (see respective passages indicated in International Search Report) each show compositions including the silanes of the type mentioned in claim 1. D3 refers to acids such as p-toluene sulphonic acid, which may be described as latent acids and D4 discloses the use of onium salt latent acids. Either of these documents could also be used in conjunction with D1 to demonstrate that the subject-matter of claim 1 is obvious.

**3 CLAIMS 6,7,9**

- 3.1 Each of the documents D1 to D4 describes a process for producing a coating by curing the respective composition, and also a resulting coating. Therefore, since the curable compositions themselves do not involve an inventive step, neither do the methods employing them (claims 7 and 9) or the resulting hydrolysed product (claim 5)

**4 DEPENDENT CLAIMS 2-5, 8 AND 10**

- 4.1 The remaining dependent claims, in combination with any of the claims to which they refer, do not appear to contain any features which infer an inventive step.